Department for Business, Energy & Industrial Strategy

Monthly Statistics of Building Materials and Components

Commentary

April 2018

Coverage: UK and Great Britain
Geographical area: Country, region and county
Date of publication: 2nd May 2018

Headline results

- Brick and block deliveries decreased by 4.0% and 7.6% respectively in March 2018, when compared to March 2017. This is thought to be due to the unseasonably cold weather experienced during March 2018.

Important Notice

This publication is now published by the Department for Business, Energy and Industrial Strategy (BEIS). All references to the Department for Business, Innovation and Skills (BIS) made in this publication refer to when it was published by BIS. This has made no impact to the content of the publication.

The methodology for the sand and gravel estimates has changed. Please see the background notes for further details.

Introduction

This commentary accompanies the latest Monthly Statistics of Building Materials and Components bulletin, published on the BEIS building materials web page on 2nd May 2018. It aims to provide a brief overview of recent trends in the data presented in the bulletin.

The bulletin presents the latest detailed information on selected building materials and components. It covers the following building materials statistics (in parentheses, the data collection frequency and the geographical area covered):

- Construction material price indices (monthly, UK)
- Sand and gravel sales (quarterly, GB*)
- Slate production, deliveries and stocks (quarterly, GB)
- Cement and clinker production, deliveries and stocks (annual, GB)
- Bricks production, deliveries and stocks (monthly, GB*)
- Concrete building blocks production, deliveries and stocks (monthly, GB*)
- Concrete roofing tiles production, deliveries and stocks (quarterly, GB)
- Ready-mixed concrete deliveries (quarterly, UK)
- Values of overseas imports and exports trades for selected materials and components for use in construction (quarterly, UK)
- Value of EU and Non-EU Trade for selected materials and components for use in construction (annual, UK)

Note: * Regional figures available

These statistics support analysis of the construction materials market and business planning. They are regularly reported in the construction press and are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. Further detail is available in this document under Uses of the data.

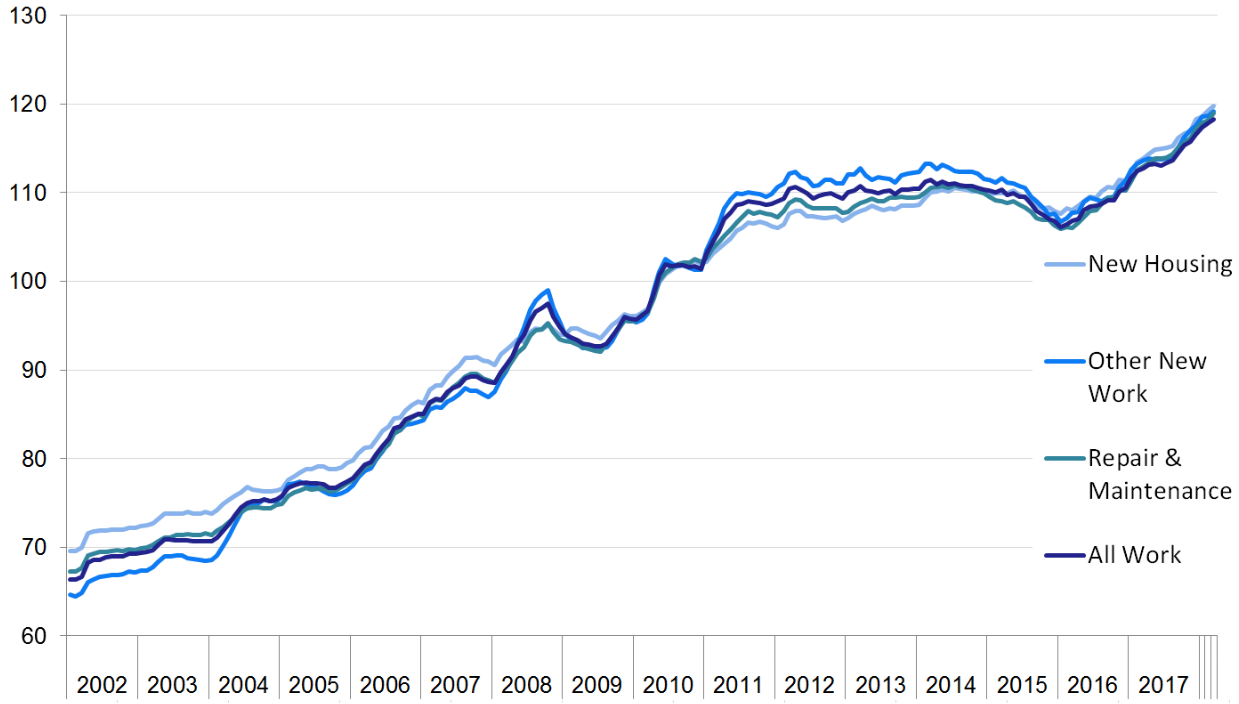
Seasonal Adjustment Review

Seasonally adjusted series for deliveries of bricks, concrete blocks, ready-mixed concrete and sales of sand & gravel are published in this bulletin. The purpose of correcting the reported series is to allow for seasonal factors such as winter weather (including the reduction in hours of daylight, and frost and rain) and other seasonal events such as Christmas and Easter. Thus seasonally adjusted figures show the underlying trend more clearly. Further information can be found in paragraph 2 of the Background Notes (see page 11).

Summary of results

Material Price Indices

Chart 1: Construction Material Price Indices, UK
Index, 2010 = 100



Source: Table 1, Monthly Statistics of Building Materials and Components

Year-on-year change

Change from March 2017 to March 2018	
New Housing	5.2%
Other New Work	4.8%
Repair & Maintenance	5.3%
All Work	4.9%

Month-on-month change

Change from February 2018 to March 2018	
New Housing	0.4%
Other New Work	0.4%
Repair & Maintenance	0.7%
All Work	0.3%

Looking at the longer term change, the material price index of **'All Work' increased by 4.9%** in March 2018 compared to the same month in the previous year.

Table 1: Construction materials experiencing the greatest price increases and decreases in the 12 months to March 2018, UK

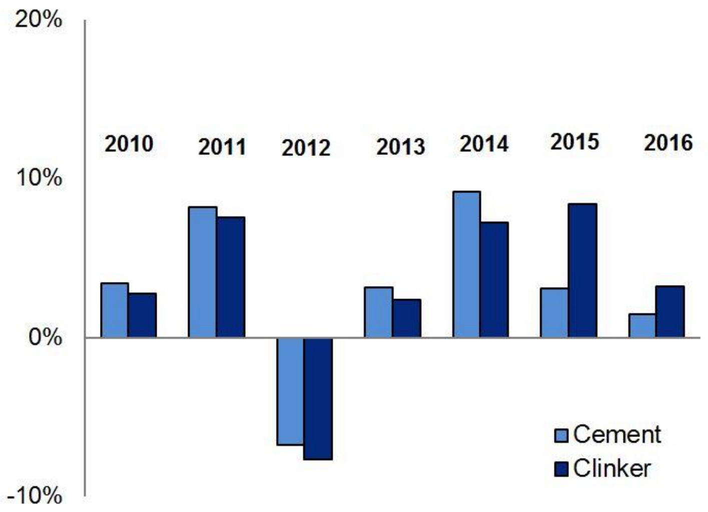
Construction Materials	% change on a year earlier
Greatest price increases	
Concrete reinforcing bars	13.8
Kitchen furniture	9.0
Imported plywood	8.3
Greatest price decreases	
Cement	-1.3
Sand & gravel (excluding levy)	-1.0
Lighting equipment for roads	-0.6

Source: Table 2, Monthly Statistics of Building Materials and Components

The aggregated construction material price index hides larger price movements for some specific products and materials. The three largest increases and decreases are presented here.

Cement & Clinker

Chart 2: Production of Cement and Clinker, GB
Percentage change over previous year (%)



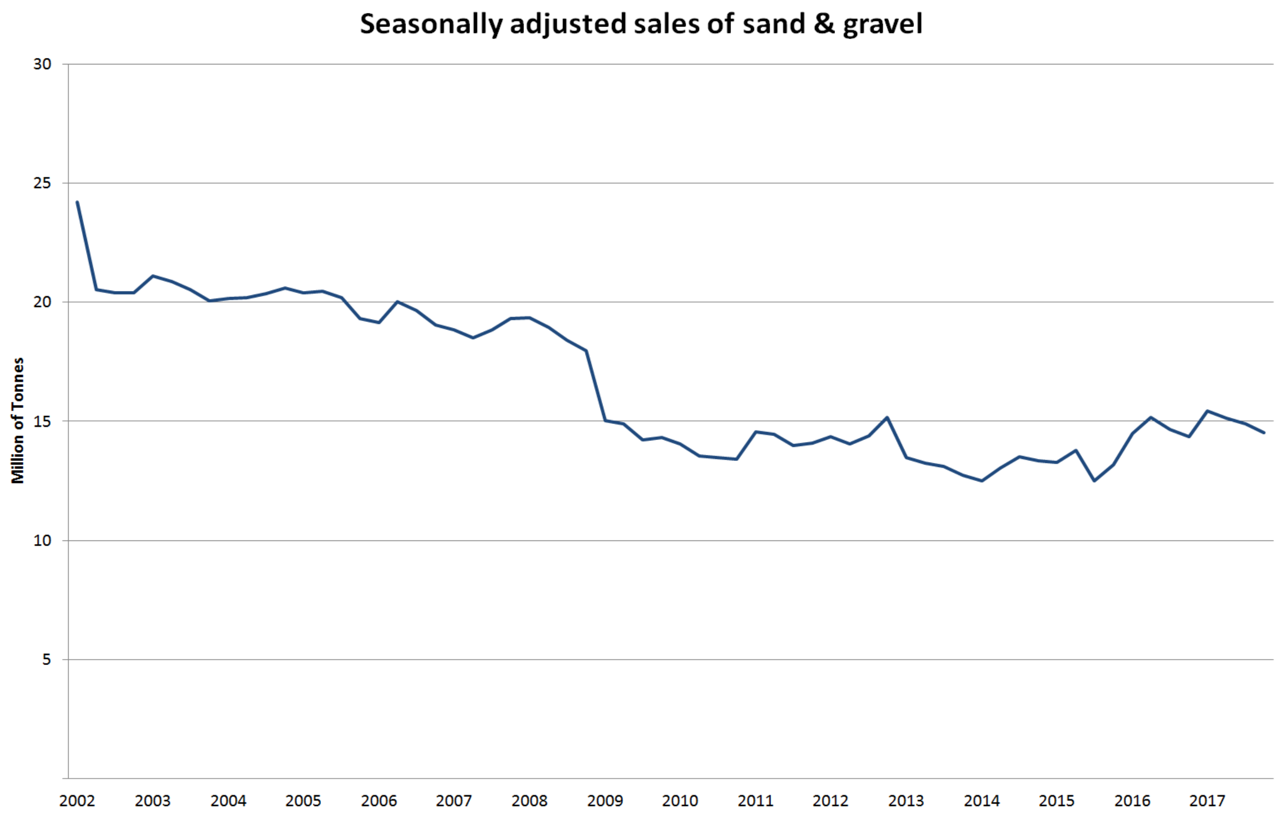
Source: Table 8, Monthly Statistics of Building Materials and Components

Cement production rose by 1.5% to 9.4 million tonnes in 2016, compared to the previous year. This growth in cement production follows growth of 3.1% to 9.2 million tonnes in 2015. Pre-recession production peaked in 2007 at 11.9 million tonnes.

Production of Clinker rose by 3.2% to 8.1 million tonnes in 2016, compared to the previous year. This growth in clinker production follows growth of 8.4% to 7.8 million tonnes in 2015. Pre-recession production, in 2007, stood at 10.2 million tonnes.

Sand & Gravel

Chart 3: Seasonally Adjusted Sales of Sand & Gravel, GB
Weight of sand & gravel



Source: Table 4, Monthly Statistics of Building Materials and Components

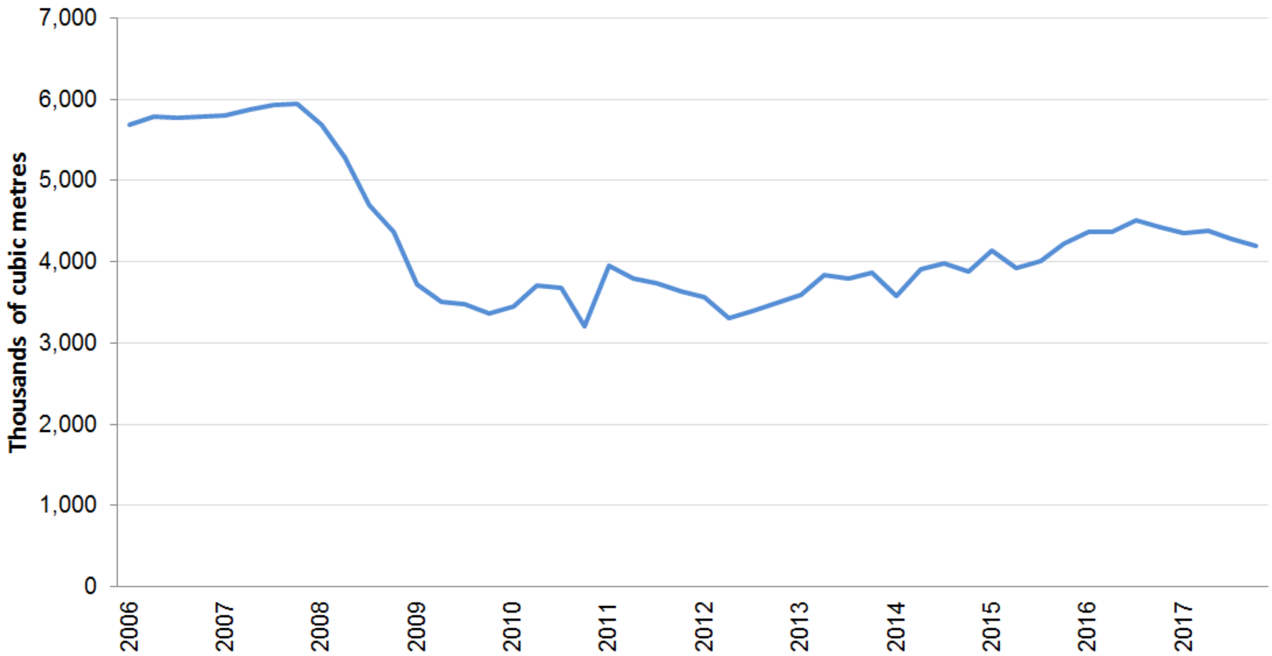
The methodology for the sand and gravel estimates has changed. Please see the background notes for further details.

- Sales of sand & gravel **decreased 2.3%** in Quarter 4 2017 compared to Quarter 3 2017, according to the seasonally adjusted data.
- This followed a decrease of 1.6% in Quarter 3 2017.
- Comparing Quarter 4 2017 to the same quarter in the previous year, sales have **increased** by 1.3%.

Seasonally adjusted sales of sand & gravel have consistently remained below levels typically seen before the recession.

Concrete

Chart 4: Seasonally Adjusted Sales of Ready-Mixed Concrete, GB
Volume of concrete



Source: Table 13, Monthly Statistics of Building Materials and Components.
The data source for raw RMC has changed from 2016 Q1; these figures form the basis of the seasonally adjusted data.

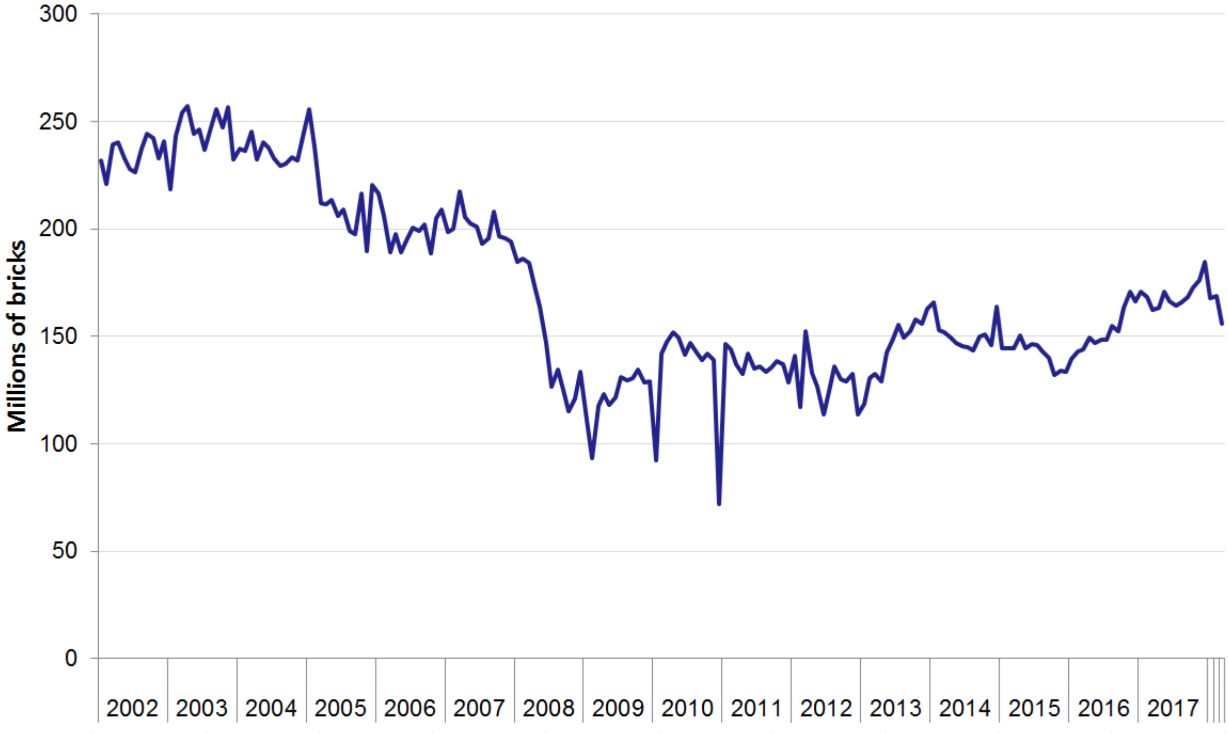
- Ready-mixed concrete sales **decreased 1.9%** in Quarter 4 2017 compared to Quarter 3 2017, according to the seasonally adjusted data.
- This followed a 2.3% **decrease** in Quarter 3 2017.
- Sales in Quarter 4 2017 **decreased** by **5.1%** compared to the same quarter in the previous year, following a **1.6% increase** in Quarter 3 2017, on the same basis.

The seasonally adjusted data show that the lowest quarterly sales in the post-recession period occurred in Quarter 4 2010, which included extreme winter conditions.

Sales have steadily recovered since Quarter 2 2012, although they have failed to reach pre-recession levels.

Bricks

Chart 5: Seasonally Adjusted Deliveries of Bricks, GB
Number of bricks



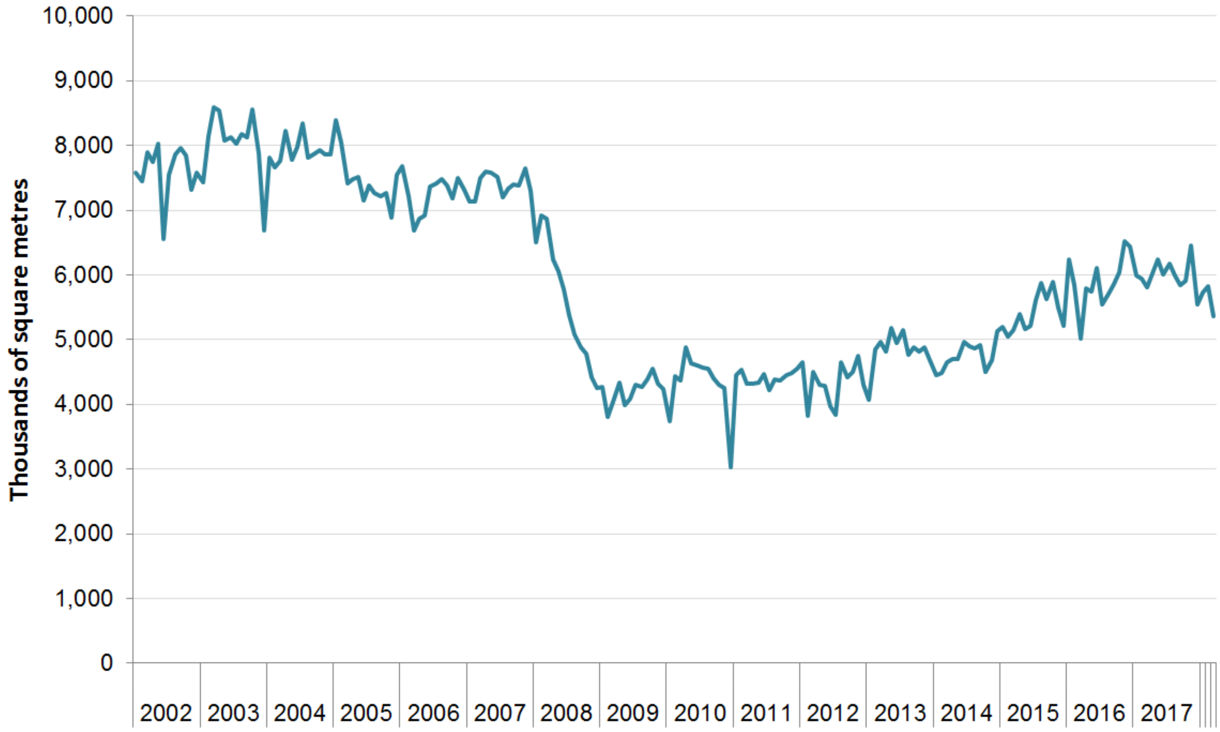
Source: Table 9, Monthly Statistics of Building Materials and Components

- There was a **4.0% decrease** in brick deliveries in March 2018 compared to March 2017, according to the seasonally adjusted figures.
- This followed a 0.3% increase in February 2018, on the same basis.
- The month-on-month change shows a **7.8% decrease** in March 2018.
- This followed a 0.5% increase in February 2018, on the same basis.

Brick deliveries declined during the recession and reached their lowest value during the extreme cold weather in December 2010. Deliveries were at their lowest point in October 2015 since April 2013.

Blocks

Chart 6: Seasonally Adjusted Deliveries of Concrete Blocks, GB
Area of concrete blocks



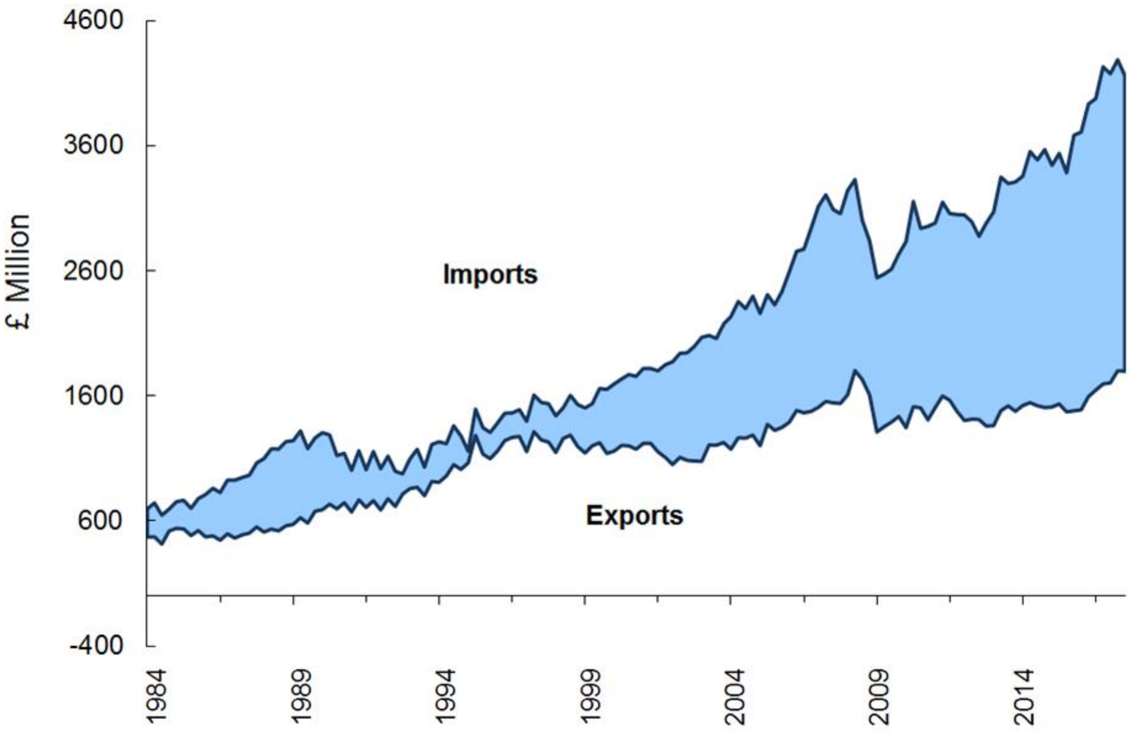
Source: Table 11, Monthly Statistics of Building Materials and Components

- There was a **7.6% decrease** in concrete block deliveries in March 2018 compared to March 2017, according to the seasonally adjusted figures.
- This followed a 1.9% decrease in February 2018, on the same basis.
- The month-on-month change shows a **7.9% decrease** in March 2018.
- This followed a 1.6% increase in February 2018, on the same basis.

Concrete block deliveries declined during the recession and reached their lowest value during the extreme cold weather in December 2010. Since then the trend has varied from month to month but the general trend year has been one of growth in concrete block deliveries.

Imports and Exports of Construction Materials

Chart 7: Exports and Imports of Construction Materials, UK.
value in pound sterling



Source: Table 14, Monthly Statistics of Building Materials and Components

Imports of construction materials **decreased** by £128 million in the fourth quarter of 2017 (to £4,155 million) compared to the previous quarter, a decrease of 2.98%.

Exports of construction materials **decreased** in the fourth quarter of 2017 by £3 million (to £1,793 million), a 0.19% decrease.

As a result, the **trade deficit narrowed** by £124.4 million to £2,361 million in Quarter 4 2017, a decrease of 5.0%.

Over the period from Quarter 1 1984 to Quarter 4 2017, construction materials imports have increased, on average (per quarter), by 3.7%. Over the same period, exports increased by an average of 2.1% per quarter.

The trade deficit was historically at its smallest throughout the 1990s, with a mean of £0.3 billion over this period. This trade deficit was 24% of the value of imports. Currently (Quarter 4 2017), the trade deficit is £2,361 million, 57% of the value of imports.

Table 2: Top-5 Exported and Imported Construction Materials in 2017

£ million

Top-5 Exported Materials		Top-5 Imported Materials	
Electrical Wires	*855*	Electrical Wires	*1,926*
Particle Board	*669*	Lifts & Escalators	*989*
Portland Cement	*430*	Slag for Construction	*857*
Lifts & Escalators	*382*	Air Conditioning Equipment	*655*
Air Conditioning Equipment	*371*	Central Heating Boilers	*636*

Source: Table 14, Monthly Statistics of Building Materials and Components

The top five exported materials in 2017 accounted for 38% of total construction material exports.

The top five imported construction materials in 2017 accounted for 30% of total construction material imports.

Table 3: UK Trade of Construction Materials with EU and Non-EU Countries, 2017

£million (% of total trade in italics)

All Building Materials & Components	EU	Non-EU
Imports	10,276	6,710
	60%	*40%*
Exports	4,357	2,760
	61%	*39%*

Source: Table 15 Monthly Statistics of Building Materials and Components

Compared to pre-recession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 61%.

Table 4: Top 5 UK Export and Import Markets for Construction Materials in 2017

£ million

Top-5 Export Markets		Top-5 Import Markets	
Republic of Ireland	*1,037*	China	*2,849*
Germany	*778*	Germany	*2,477*
USA	*594*	Italy	*1,081*
France	*590*	Netherlands	*847*
Netherlands	*565*	Spain	*845*

Source: HMRC Overseas Trade Statistics

The top five export markets comprised 50% of total construction materials exports in 2017. The Republic of Ireland remains the largest market, despite having shrunk from a pre-recession peak of 27% of total exports in 2007, to 15% in 2017.

The top 5 import markets comprised 48% of total construction materials imports in 2017. 17% of all imports are from China.

The ‘Rotterdam Effect’ (also known as the ‘Antwerp Effect’) may affect trade figures. This is explained in detail by HM Revenue & Customs.

Economic Background

Construction Output

The most recent construction output figures for February 2018 were published by the **Office for National Statistics** on 11th April 2018.

Key points:

- Construction output continued its recent decline in the three-month on three-month series, falling by 0.8% in February 2018.
- The three-month on three-month decrease in construction output was driven predominantly by the continued decline in repair and maintenance work, which fell by 2.6% in February 2018. Private housing new work and infrastructure new work were the only sectors to grow on this basis, by 2.8% and 1.3% respectively.
- Construction output also decreased in the month-on-month series, contracting by 1.6% in February 2018, stemming from a 9.4% decrease in infrastructure new work. Private housing new work grew by 1.5%.
- Compared with February 2017, construction output fell 3.0%; the biggest month-on-year fall since March 2013.
- Office for National Statistics has received some anecdotal information from a small number of survey respondents regarding the effect of the snow on their businesses in the final week of February 2018. The adverse weather conditions across Great Britain could have potentially contributed to the decline in construction output, although it is difficult to quantify the exact impact on the industry.
- As a result of the inclusion of VAT turnover data, and late survey returns, there have been minimal upward revisions to construction output for Q1 and Q2 2017. For Q3 2017, the incorporation of VAT data for the first time means that the fall previously reported has been reversed, and Q3 2017 now shows positive growth of 0.4%. Late survey returns for Q4 2017 have revised output growth upwards from -0.7% to -0.1%.
- The overall result of these revisions to 2017 data is to revise annual growth up from 5.1% to 5.7%.

Bank of England Summary of Business Conditions

The **Bank of England** published its latest update to the Agents' Summary of Business Conditions on 28th March 2018, covering intelligence gathered between late December 2017 and late February 2018.

Key points:

- Robust growth in goods exports had tightened capacity and, together with improving profit margins, strengthened investment intentions in manufacturing slightly.
- Recruitment difficulties remained a primary concern, though the impact on pay growth had been limited.
- Some evidence of financial distress in retail and leisure, reflecting weak consumer spending growth.
- Construction output growth had eased with growth in housebuilding offset by flat or falling activity in other parts of the sector.
- Growth in construction output slowed further, with the overall level of activity little changed on a year earlier.

Gross Domestic Product Estimate

The **Office for National Statistics** published a preliminary estimate of gross domestic product for Quarter 1 2018 on 27th April.

Key points:

- GDP is estimated to have increased by 1.2% in Quarter 1 2018 compared to Quarter 1 2017.
- GDP is estimated to have increased by 0.1% in Quarter 1 2018 compared to Quarter 4 2017.
- Construction output decreased by 3.3% in Quarter 1 2018 compared to Quarter 1 2017.
- Construction output decreased by 3.3% in Quarter 1 2018 compared to Quarter 4 2017.

Gross Domestic Product Forecast

The latest monthly **Consensus Economics** forecast survey (which uses an average of private sector forecasts) results were published in February 2018.

Key points:

- The mean GDP growth forecast for 2018 is 1.5% growth, 0.1% increase from last month.
- The mean GDP growth forecast for 2019 is 1.6% growth, the preliminary estimate.

The **Office for Budget Responsibility** published its most recent Economic and Fiscal Outlook on 13th March 2018.

Key point:

- The GDP growth forecast for 2018 was unchanged from the November 2017 and remains at 1.4%.

Construction Output Forecasts

In April 2018, **Experian** published their forecasts for the construction sector.

Key points:

- Output is expected to increase by an average of 1.1%; by 0.2% in 2018, by 1.2% in 2019 and 2.0% in 2020.
- Public housing and private housing will slow down, but continue to rise steadily through the forecast period.
- The infrastructure sector is forecast to continue to recover from a 9.3% downturn in 2016, it grew 10.2% in 2017 and is forecast to grow by 5% in 2018, 11% in 2019 and 4% in 2020.
- Private commercial building grew by 5.5% in 2017, but is forecast to decrease by 7% in 2018, 6% in 2019, before increasing by 1% in 2020. Thought to be due to a more cautious attitude from investors and developers in light of the EU Referendum vote in June 2016.

The **Construction Products Association** published their Spring forecasts for the construction sector in April 2018.

Key points:

- Overall, construction output is forecast to increase by 0.1% in 2018

- Construction activity during 2018 is expected to remain flat despite significant growth in private house building and infrastructure due to declines in commercial offices and retail activity as well industrial factories. Without this growth in housing and infrastructure, output would fall by 2.0% in 2018
- In 2019, construction output is forecast to rise by 2.7% as infrastructure projects drive industry activity; and in 2020, construction output is forecast to rise by 1.9%

Manufacturing

The latest **Index of Production** data for February 2018 were published on11th April 2018 by the Office for National Statistics.

Key points for the SIC 23.1-4/7-9 *industry* (includes the manufacture of bricks, tiles and other construction products)*:*

- When comparing February 2018 with February 2017, **output increased by 1.1%.**
- When comparing February 2018 with January 2018, **output decreased by 0.1%**

Key points for the SIC 23.5-6 *industry* (includes the manufacture of concrete, cement and other products for construction purposes)*:*

- When comparing February 2018 with February 2017, **output decreased by 0.5%.**
- When comparing February 2018 with January 2018, **output decreased by 7.4%.**

Background notes

Quality information for the Building Materials bulletin

1. The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

   Designation can be broadly interpreted to mean that the statistics:
   - meet identified user needs;
   - are well explained and readily accessible;
   - are produced according to sound methods, and
   - are managed impartially and objectively in the public interest.

   Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed. The full assessment report, published on 22nd December 2011, can be found on the UK Statistics Authority website.

2. As of 3rd August 2016, this publication is published by the Department for Business, Energy and Industrial Strategy (BEIS). All references to the Department for Business, Innovation and Skills (BIS) made in this publication refer to when it was published by BIS. This has made no impact to the content of the publication.

3. In work done for BIS on improving the quality of statistics published in the Monthly Statistics of Building Materials and Components, the Office for National Statistics' Methodology Advisory Service (MAS) recommended that BIS should start seasonally adjusting key data series (see ONS/MAS review of building materials statistics: final report for more detail). Seasonal adjustment is widely used in official statistics and aids data interpretation by removing effects associated with the time of the year or arrangement of the calendar. Seasonal effects frequently obscure features of interest in data, such as long term trends and the effects of unusual occurrences. By removing seasonal effects, users can more readily identify the features of interest.

   Following advice from the MAS, and the results of a consultation (see the results of the BIS consultation on seasonal adjustment for more detail), BIS agreed to publish seasonally adjusted data for the following series:

   Sand and gravel, total sales
   Concrete blocks, all types deliveries
   Bricks, all types deliveries
   Ready-mixed concrete, deliveries

   For the initial publication of seasonally adjusted data, data from 1983 onwards will be seasonally adjusted. Subsequently, for each monthly publication, data up to 12 months or 4 quarters previous to the new data point will be revised. Upon the completion of each year's data series, data for the previous 12 years will be revised. BIS will publish both non-seasonally adjusted and seasonally adjusted data in the tables of this publication. From the June 2015

Edition this publication will only use seasonally adjusted data in the commentary for these series.

4. Quality issues related to the *Building Materials and Components* outputs are discussed in the review of the Building Material statistics that was carried out in 2010 by BIS's construction team. The review aimed to: ascertain user needs; examine whether existing data collection methodologies are fit for purpose; estimate compliance costs; assess compliance with the Code of Practice; and identify options for change.

   The full report can be found on the BIS *Building Materials and Components* webpage.

   Detailed information on data suppliers, coverage and data collection methodology can be found in sections 2.1-2.10. Quality issues (coverage and accuracy of sample panels, response rates, survey results processing, disclosure etc.) and potential measures that could be employed to improve the quality of the statistics are discussed in section 2.11 of the review. Users' views on the quality of the *Building Materials and Components* statistics are given in section 3.3.4. These are derived from a user survey carried out in early 2010, as part of the review (see section 3 for details).

5. Following the review, BIS acted on the recommendations including commissioning the Office for National Statistics Methodology Advisory Service (ONS/MAS) to address some of the recommendations from the 2010 review. In July 2011, MAS published their interim report. In July 2012, MAS published their final report.

6. HM Revenue and Customs use administrative sources to produce Overseas Trade Statistics. A Statement of Administrative Sources used to compile construction material trade statistics is available on the BIS *Building Materials and Components* webpage:

   Separately, HM Revenue and Customs also have a Statement of Administrative Sources which covers Overseas Trade Statistics.

7. The pre-announcement of any major changes to samples or methodology also details some methodological changes to the collection of data.

8. The following table gives a summary of response rates related to some of the latest survey results. Where the response rate is less than 100%, estimates are made for missing values.

For latest data used	**Bulletin table number**	**Response rate**
Quarterly Sand and Gravel	4, 5 & 6	89%
Quarterly Sand and Gravel – Land Won	4, 5 & 6	90%
Quarterly Sand and Gravel – Marine Dredged	4, 5 & 6	87%
Quarterly Slate	7	100%
Quarterly Concrete Roofing Tiles	13	100%
Monthly Bricks Provisional data	9	89%
Monthly Bricks Final data	9 & 10	100%
Monthly Concrete Blocks	11	89%

9. Change to the methodology for the land-won sand and gravel surveys. Previously we have used information from the Annual Minerals Raised Inquiry (AMRI) run by the Department for Communities and Local Government (now the Ministry for Housing, Communities and Local Government) in order to select the sample of sites which received the land-won sand and gravel survey and to weight the results to reflect the population. MHCLG no longer run AMRI,

and so we have had to make changes to the sand and gravel surveys, which took effect from Q1 2017. The changes are:

- We have changed the survey from a sample to a census, so that we now send forms to all sites identified as producing sand and/or gravel. This has increased our panel from about 200 sites to around 500, and means that we will no longer need to weight the returns. We will still need to impute for any non-response.
- We refreshed our panel of sites using information from the British Geological Survey, ensuring that it was up-to-date.
- We made the survey statutory, bringing it into line with the marine-dredged sand and gravel survey which was already statutory. This means that respondents are required to complete the survey under the Statistics of Trade Act 1947.

Uses of the data

10. The *Building Materials and Components* statistics are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. In a wider context, the figures are regularly reported in the construction press to facilitate market analysis and business planning for its wide range of readers. The statistics are also increasingly used by financial institutions for assessing market information and industry trends. For more information on the uses of the Building Materials statistics, their usefulness to users and users' views on the quality of these statistics, see Section 3 of the *Building Materials and Components* review.

Related Statistics

11. Construction Statistics: Sources and Outputs lists the known sources of information available on the construction industry and their outputs. These include information on employees, employment, enterprises, output and new orders in the construction industry as well as the contribution of the industry to the economy. Related information, for example housing, is also included.

12. The Construction Statistics Annual brings together a wide range of statistics currently available on the construction industry from a variety of sources and provides a broad perspective on statistical trends in the construction industry, with some international comparisons.

13. In its monthly **Index of Production (IoP)** publication, the Office for National Statistics publishes Gross Value Added (seasonally adjusted, UK) data for the following two industries:

- SIC 23.1-4/7-9 industry, which includes the manufacture of bricks, tiles and other construction products.
- SIC 23.5-6 industry, which includes the manufacture of concrete, cement and other products for construction purposes.

These data are not directly comparable with the data in this bulletin, due to differences in coverage and methodology. They are nevertheless useful in illustrating the latest output trends of related construction materials as measured by the Office for National Statistics.

Revisions

14. Our revisions policy can be found on the BEIS Building Materials webpage.

15. The pre-announcement of any major changes to samples or methodology and Summary of Revisions give further information on revisions and other changes to data and can also be found on the BEIS Building Materials webpage.

Pre-release access

16. No pre-release access is granted to this publication.

Further information

The coverage of cement and cementitious statistics changed from UK to GB in 2002 due to data confidentiality issues in Northern Ireland as the number of manufacturers decreased. Where the coverage of figures for other building materials is limited to Great Britain (i.e. sales of sand and gravel, and production, deliveries and stocks of slate, clinker, bricks, concrete building blocks and concrete roofing tiles), no equivalent data are collected for Northern Ireland.

The most recently published bulletin and accompanying data tables can be found on BIS' *Building Materials and Components* website.

Accompanying tables with data relating to 2011 are accessible from this link.

Accompanying tables for 2005 - 2010 are accessible from this link.

Requests for older data should be sent to MaterialStats@beis.gov.uk.

Please send us any comments or feedback you may have about this commentary.

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This publication available from www.gov.uk/beis

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